ARS-2057P/2050P
Native SATA Copy Controller

User's Manual

—Version: 1.3 —

(for PCB Rev:5.x)

Attention:
Wait over 5 seconds to power on after shutdown to prevent the abnormal operation of the system.

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CE FC

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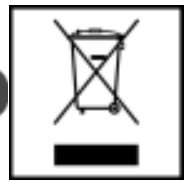
ACARD TECHNOLOGY

WEEE Statement



WEEE Statement

English

In order to cope with the increasing waste electrical and electronic equipment, reduce the use of landfill and incinerator, and prevent the harmful matter of waste equipment from entering the environment, the European Union (EU) has set the Directive on Waste Electrical and Electronic Equipment (WEEE) asking manufacturers to collect, recycle and treat waste electrical and electronic equipment properly. Member nations already established their free of charge recycle systems of WEEE before August 13, 2005. Accordingly, ACARD has to be responsible for recycling all products exported to Germany. You can return your ACARD product that needs recycling to a local collector.

WEEE Erklärung

German

Mit dem Ziel die steigende Menge elektrischer und elektronischer Altgeräte zu bewältigen ohne hierzu unnötig Mülldeponien und Verbrennungsanlagen zu belasten und um die Verschmutzung der Umwelt durch freiwerdende Stoffe aus den Altgeräten zu vermeiden, hat die Europäische Union (EU) die Richtlinie über Elektro- und Elektronik-Altgeräte erlassen. Die Richtlinie verpflichtet Hersteller, elektrische und elektronische Altgeräte umweltgerecht einzusammeln, zu recyceln und zu entsorgen. Die Mitgliedsstaaten der EU haben bereits ihre kostenfreien Recyclesysteme konform der WEEE vor dem 13. August 2005 eingerichtet. Entsprechend der Richtlinie ist ACARD verantwortlich für die umweltgerechte Entsorgung aller nach Deutschland exportierten ACARD Produkte. Sie können Ihr zu entsorgendes ACARD Produkt zu Ihrer örtlichen Sammelstelle bringen.

AEEA verklaring

Dutch

Met het doel de stijgende hoeveelheid afgedankte elektrische en elektronische apparatuur te beheersen zonder hiervoor onnodig stortplaatsen en verbrandingsovens te belasten en om de vervuiling van het milieu door vrijkomende stoffen uit de afgedankte apparatuur te voorkomen, heeft de Europese Unie (EU) de richtlijn betreffende afgedankte elektrische en elektronische apparatuur besloten. Deze richtlijn verplicht fabrikanten afgedankte elektrische en elektronische apparatuur in te zamelen, te recyclen en te verwijderen. De lidstaten van de EU hebben reeds de kosteloze recyclesystemen volgens de AEEA vóór de 13 augustus 2005 ingericht. Conform de richtlijn is ACARD verantwoordelijk voor de verwijdering van alle naar Nederland geëxporteerde ACARD producten. U kunt uw afgedankt ACARD product naar uw locale inzamelplaats brengen.

Elektrik ve Elektronik Madde Atıkları Demeci

Turkish

Elektrik ve electronik madde atıklarının yukselmesiyle basedebilmek ,arazi doldurma ve cop yakma fırını kullanımını azaltmak,atık madde zararlarının cevreye yayılmasını onlemek icin Avrupa Birligi (AB),ureticilerden elektrik ve elektronik madde atıklarını gerektigi gibi toplamalarını,geri donusturmelerini ve kimyasal isleme tabi tutmalarını talep etmek icin Elektrik ve Elektronik Madde Atıkları uzerine bir direktif hazırladı.Topluluk uyeleri,13 Agustos 2005' ten once elektrik ve elektronik madde atıklarının ucretsiz geri donusum sistemlerini coktan olusturmuslardı.Bundan dolayı, ACARD, Almanya'ya ihrac ettigi butun urunlerin geri donusumunden sorumludur.ACARD urunleri geri donusum gerektirirse yerel toplayıcılara geri verebilirsiniz.

WEEE бюлетень

Russian

ЧтобЫ cIIравиться с увеличивающимся ненуӂным электрическим и электронным оборудованием, уменъшите использование закапывания мусора и использования установки для сжигания отходов, препятствуйте вредному выбросам загрязнять окружановки среду, Европейский союз (ЕС) установил Директиву по Ненужному Электрическому и Электронному Оборудованию (WEEE) для того, чтобы изготовителей собрали, перерабатывали и вообще проявили внимание к ненужному электрическому и злектронному оборудованию должным образом. Члены нации установили бесплатную систему и электронному оборудованию должным образом. Члены нации установили бесплатную систему переработки WEEE до 13 августа 2005. Соответственно, ACARD обязан быть ответственным за то, что переработал все продукты, экспортируемые в Германию. Вы можете возвратнть ваш продукт ACARD, который нуждается в рециркуляции местному сборщику.

WEEE Statement

French

Afin de gérer la quantité croissante de déchets électriques et électroniques, de réduire l'utilisation des décharges et des incinérateurs et d'éviter que des déchets nocifs ne polluent l'environnement, l'Union Européenne a publié la directive WEEE sur les déchets électriques et électroniques. Celle-ci spécifie que les fabricants doivent collecter, recycler et traiter l'équipement électronique et électrique usagé. Depuis le 13 août 2005, les pays membres ont mis en place un système de recyclage gratuit selon le WEEE,.
De ce fait, Acard est responsable du recyclage de tous les produits exportés vers l'Allemagne. Vous pouvez mettre au rebut votre équipement ACARD usagé dans votre centre local de recyclage.
Pour plus d'informations sur les lieux de mise au rebut des équipements usagés destinés au recyclage, veuillez contacter votre mairie, votre service de traitement des déchets ménagers ou le magasin où vous avez acheté le produit.

RAEE

Spanish

Con la finalidad de reducir el incremento de residuos eléctricos y de material electrónico, reduciendo el uso de los vertederos e incineradoras y prevenir el preocupante aumento del contacto de estos residuos con el medio ambiente. Por este motivo la Unión Europea ha fijado la Directiva de Residuos de Aparatos Eléctricos y Electrónicos (RAEE) solicitando a los fabricantes la recolección, reciclaje y tratamiento de ests residuos correctamente. Los paises miembros ya han establecido su sistema de reciclaje gratuito de RAEE antes del 13 de Agosto del 2005. Por este motivo ACARD es el responsable del reciclaje de todos los productos exportados a Alemania. Usted puede devolver su producto Acard a un punto de recogida local cuando desee reciclarlo.

Dichiarazione WEEE

Italian

Per far fronte all'aumento dei residui delle apparecchiature elettriche ed elettroniche, ridurre l'uso di materiale di riporto e degli inceneritori, ed impedire che il materiale nocivo delle apparecchiature residue entri a contatto con l'ambiente, l' Unione Europea (UE) ha stabilito le Direttive sui Residui delle apparecchiature Elettriche ed Elettroniche (WEEE) chiedendo ai fornitori di raccogliere correttamente, riciclare e trattare le apparecchiature elettriche ed elettroniche residue. Le nazioni facenti parte dell' Unione Europea hanno già stabilito il loro sistema gratuito di riciclaggio di questo materiale (WEEE) prima del 13 agosto 2005. Di conseguenza, ACARD è responsabile del riciclaggio di tutti i prodotti esportati in Germania. Potete restituire il vostro prodotto acquistato da ACARD che deve essere riciclato da un' azienda specifica locale.

Chapter 1 Introduction

1.1 Overview

The ARS-2057P/2050P is a stand-alone data backup system that supports high-speed SATA BD/DVD/CD writers. It uses the ACARD RISC CPU engine, so it is simple to use and doesn't require a PC. Data, music or multimedia BD/DVD/CD discs can be easily backed up using just the LCD display and selection keys, making it suitable for low-volume individual and office users. The ARS-2057P is a 1-to-7 duplication controller while the ARS-2050P is a 1-to-10 duplication controller.

1.2 Features

- Stand-alone SATA-to-SATA BD/DVD/CD duplication controller
- Completely stand-alone duplication controller that requires no additional software or hardware
- Supports internal 3.5" or 2.5" SATA HDD
- Supports full-speed writing with high-speed SATA BD/DVD/CD writers.
- User-friendly interface with LCD display
- Optional modes to extend product applications
- Firmware can be upgraded using BD/DVD-ROM

1.3 Specifications

- ACARD AMS1060 processor
- ACARD ATP8624 SATA controller
- High reliability of SDRAM for embedded system
- 10 SATA interface channels (ARS-2057P)/12 SATA interface channels (ARS-2050P)
- 2x16 LCD display
- 4 membrane buttons with two hotkeys
- 512KB Flash Memory for Copy Code
- AEC-4420S: Internal SATA to external USB converter (*Optional for USB Link Host)
- Dimensions: 150mm(W) x 42mm(H) x 144mm(D)
- Power Supply: DC 5V

1.4 Systme Requirement

- Upright external cases ARS-2057P 9/10 × 5.25"
  ARS-2050P 12/13 × 5.25"
- SATA cable
- BD/DVD-ROM x 1
- BD/DVD Writer x 7 (ARS-2057P)/ 10 (ARS-2050P)
- SATA HDD (optional)

Chapter 2 Installation

Before installing the ARS-2057P/2050P, please note that the product is provided in 3 types of packaging: Stand-alone Copy Controller, Complete Duplicator System, Duplicator System with no BD/DVD Writer.

2.1 Stand-alone Copy Controller

- Open packaging to check for any problems.
- Provide BD/DVD-ROM drive.
- Provide 7~10 BD/DVD Writers.
- Provide a 3.5” SATA HDD (optional).

2.2 Complete Duplicator System

- Open packaging to check for any problems.
- Provide a 3.5”SATA HDD (optional).
- Check that the PSU provides enough wattage.

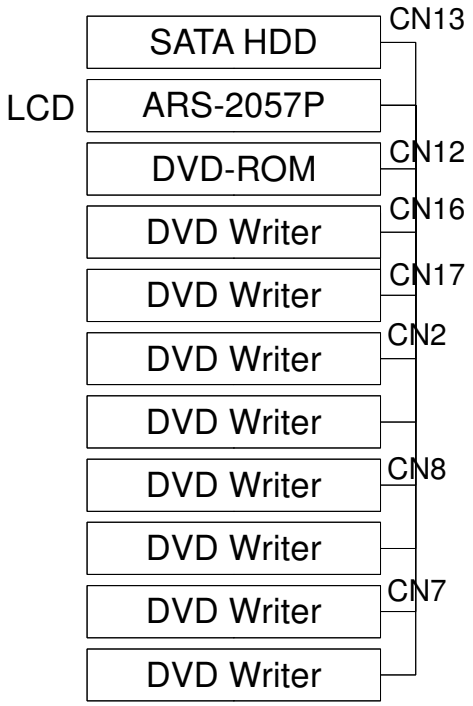
2.3 Duplicator System with no BD/DVD Writer

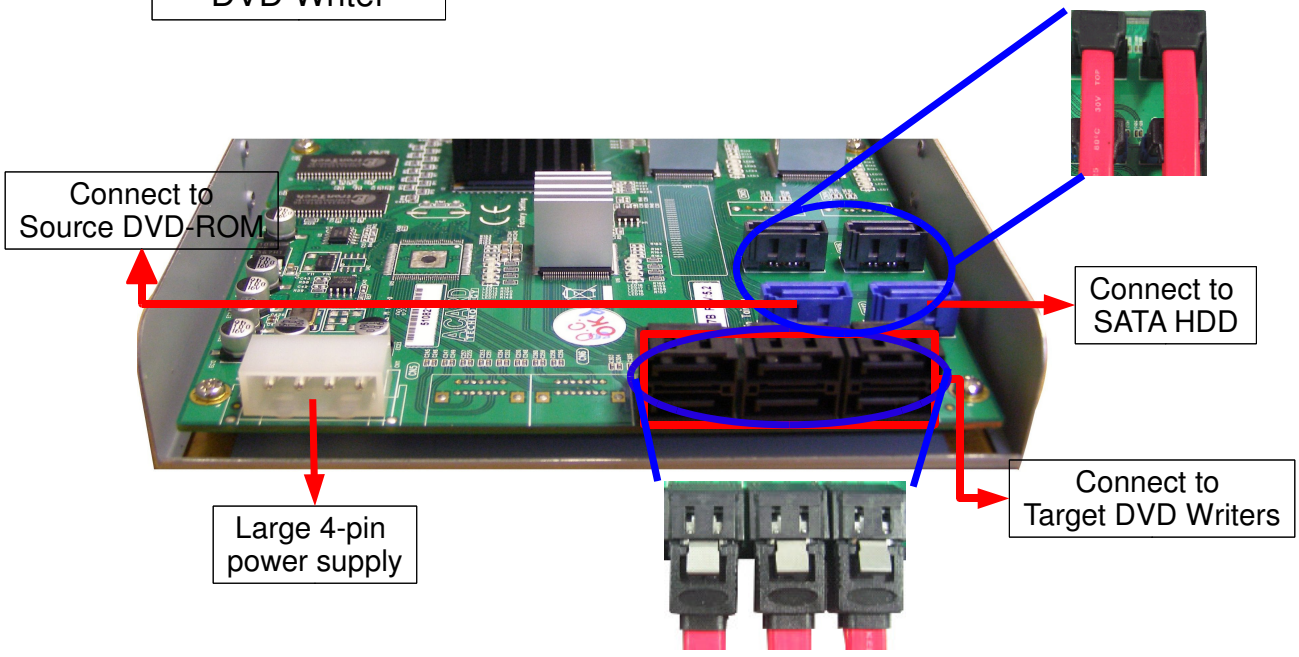
- Open packaging to check for any problems.
- Provide DVD-ROM drive.
- Provide 7~10 BD/DVD Writers.
- Provide a 3.5”SATA HDD (optional).
- Check that the PSU provides enough wattage.

2.4 Installation Instructions

2.4.1 Installing the ARS-2057P

The diagram and photo below shows an ARS-2057P connected with a DVD-ROM, a SATA HDD and 7 DVD writers.

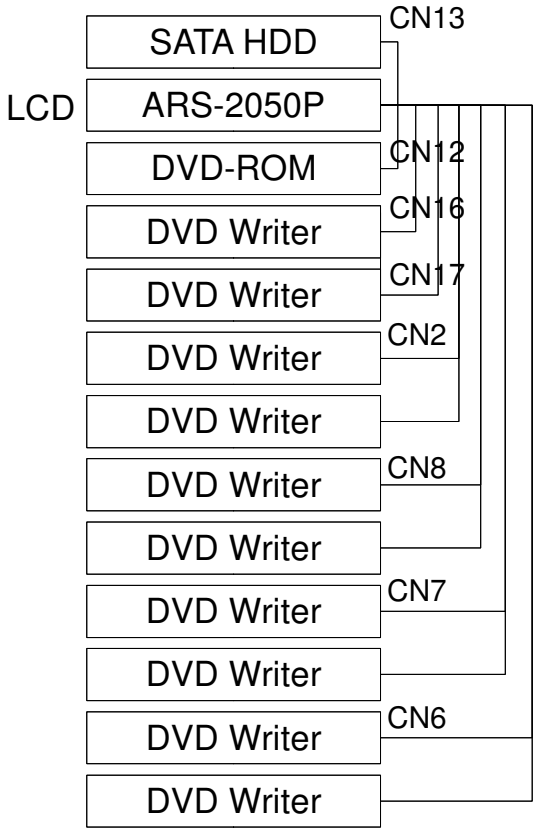


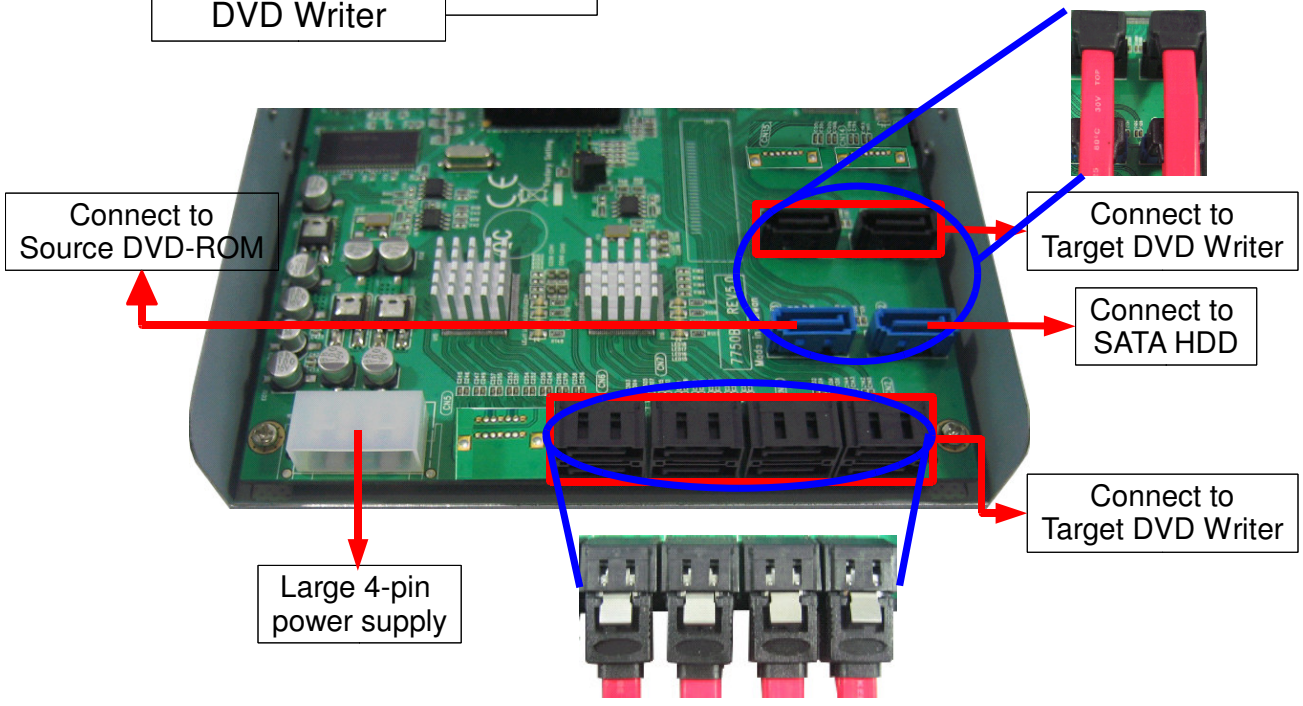


Attention: When connecting SATA cable to the port, plug it in till you hear a click. To unplug the SATA cable, press the latch and remove it. (Do not force to remove the cable.)

2.4.2 Installing the ARS-2050P

The diagram and photo below shows an ARS-2050P connected with a DVD-ROM, a SATA HDD and 10 DVD writers.



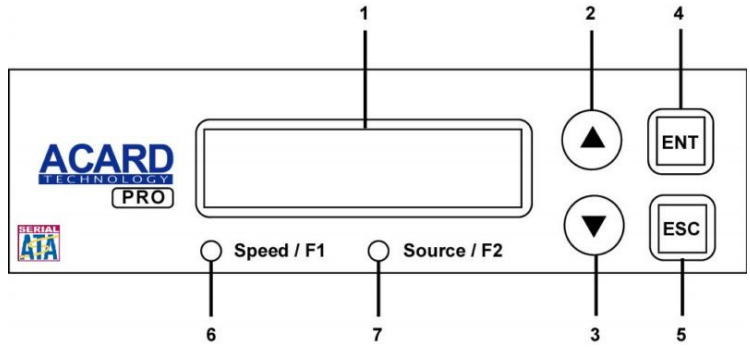


Attention: When connecting SATA cable to the port, plug it in till you hear a click. To unplug the SATA cable, press the latch and remove it. (Do not force to remove the cable.)

Chapter 3 Basic Operations

3.1 Buttons and LCD Display

The ARS-2057P/2050P copy controller panel features 6 buttons and 1 LCD display.



1. It shows a function or a message.
2. It's used to scroll up function menus.
3. It's used to scroll down function menus.
4. It's used to execute a function.
5. It's used to cancel a function.
6. It's used to entry "Speed Menu".
7. It's used to entry "Source Menu".

3.2 About HDD Installation

An HDD is not required, but installing one allows the use of image files. In other words, it offers the option of duplicating BDs/DVDs using any image file stored on the HDD. The two sections below explain how to use the ARS-2057P/2050P with or without an internal HDD.

3.2.1 With Internal HDD

If the ARS-2057P/2050P has a 3.5" SATA HDD installed, its operating instructions are as follows:

- To check if the HDD has been detected by the ARS-2057P/2050P, use menu option 11-15 to check that IDE0 returns the message HDD. The HDD must be formatted using menu option 12-04 before use.
- Use menu option 8, "Select Source", to set the HDD as the source drive.
- At menu option 9, "Image", select a partition for storing data.
- If the selected partition is empty, insert a BD/DVD into the BD/DVD-ROM then select menu option 9-01, "Load". Press ENT to load the data from BD/DVD to the selected partition. Data can be stored in different partitions.
- Press ESC to return to the main menu then use ▲ or ▼ to select menu option 1 "Copy". Insert a blank BD/DVD into the BD/DVD writer then press ENT to begin duplication.
- When duplication is complete, the successfully written BD/DVD will automatically eject. By default, the writer is set to auto eject.
- A failed BD/DVD will, by default, stay in the BD/DVD writer. To remove a failed BD/DVD, press the "Eject" button on the BD/DVD writer.
- Do not press any buttons when duplication is in progress because the sudden interruption may damage the device and destroy the BD/DVD.

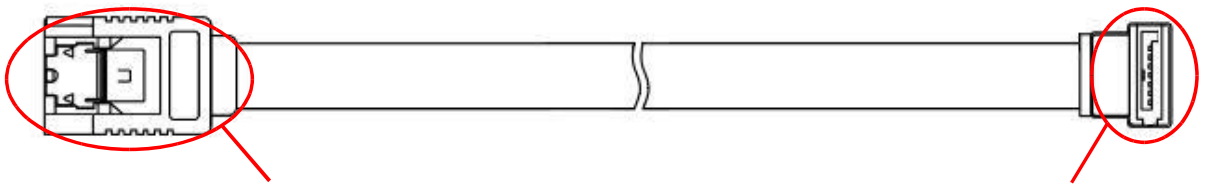
3.2.2 Without Internal HDD

If the ARS-2057P/2050P does not have a 3.5" SATA HDD installed, its operating instructions are as follows:

- Insert a source BD/DVD in the BD/DVD-ROM.
- Press ▲ or ▼ to select menu option 1, “Copy". Insert a blank BD/DVD into the BD/DVD writer then press ENT to being duplication.
- When duplication is complete, the successfully written BD/DVD will automatically eject. By default, the writer is set to auto eject, but this can be changed.
- A failed BD/DVD will by default stay in the BD/DVD writer but this can be changed. To remove a failed BD/DVD, press the “Eject” button on the BD/DVD writer.

Please check that the SATA cable is properly connected before installing the hardware.

The SATA HDD can be connected directly to the SATA port on the ARS-2057P/2050P board via the SATA cable.



Connect to ARS-2057P/2050P SATA port

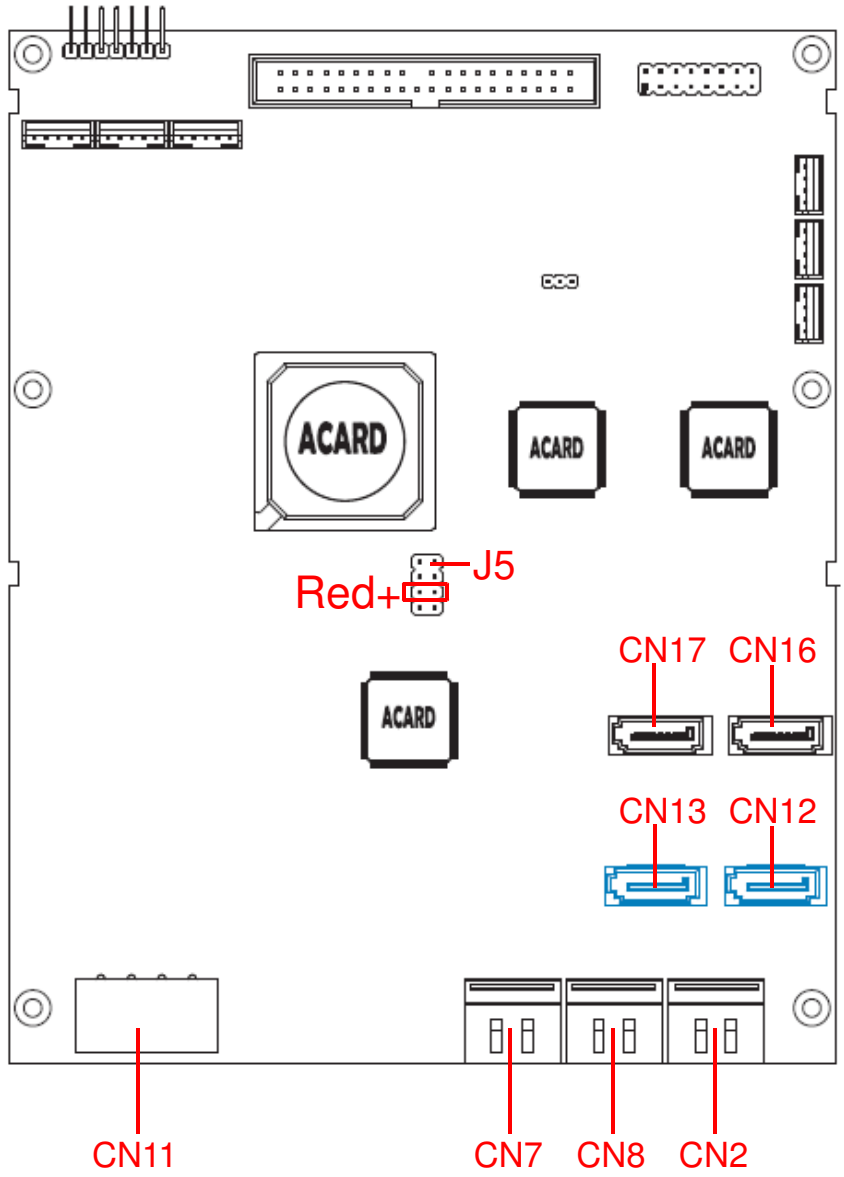
Connect to SATA port of SATA HDD/BD/DVD writer

Attention: When connecting SATA cable to the port, plug it in till you hear a click. To unplug the SATA cable, press the latch and remove it. (Do not force to remove the cable.)

Avoid 90° bending on SATA cable. Use the 90° SATA connector cable provided to connect to the port CN13 and CN17.

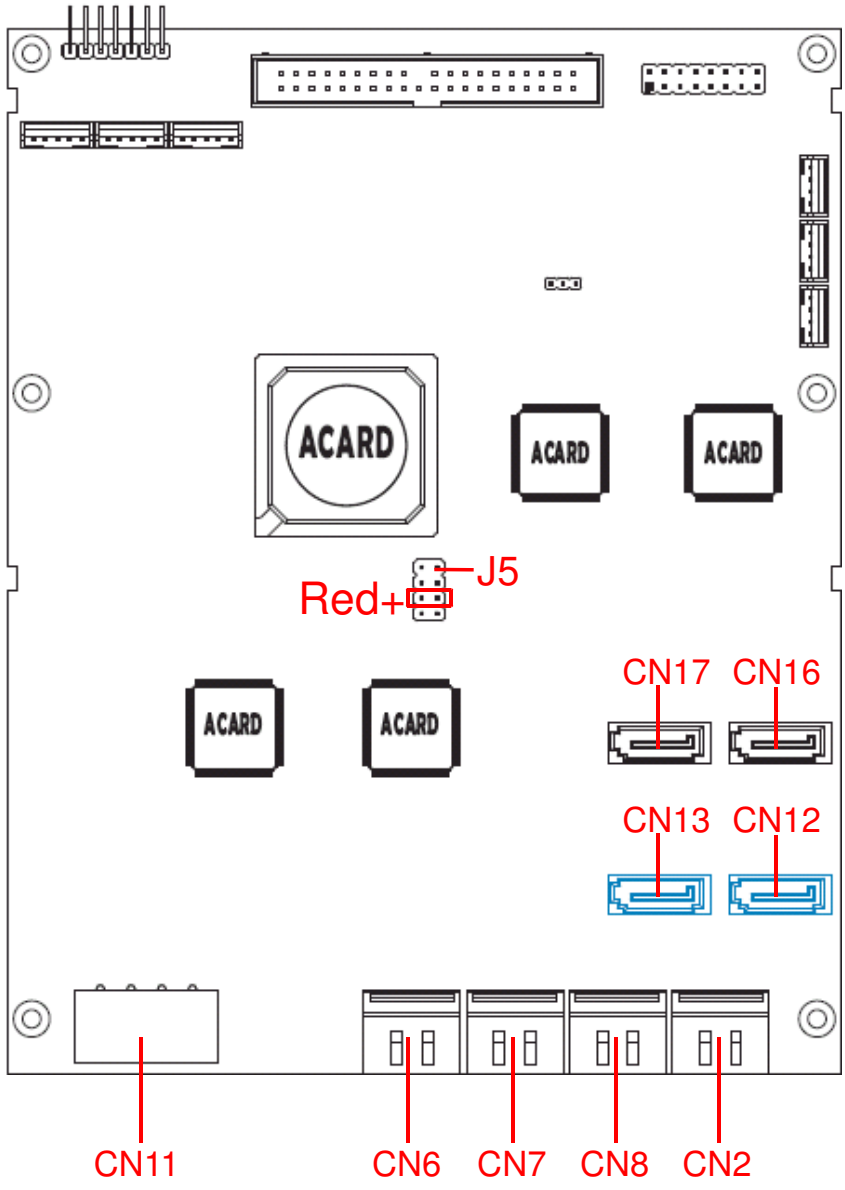
Chapter 4 PCB Layout

The layout of the ARS-2057P is shown below.



J5: USB signal link
CN13: Connects to source BD/DVD-ROM
CN12: Connects to SATA HDD
CN2 & CN7 & CN8 & CN16 & CN17 : Connects to target BD/DVD writers
CN11: Power socket

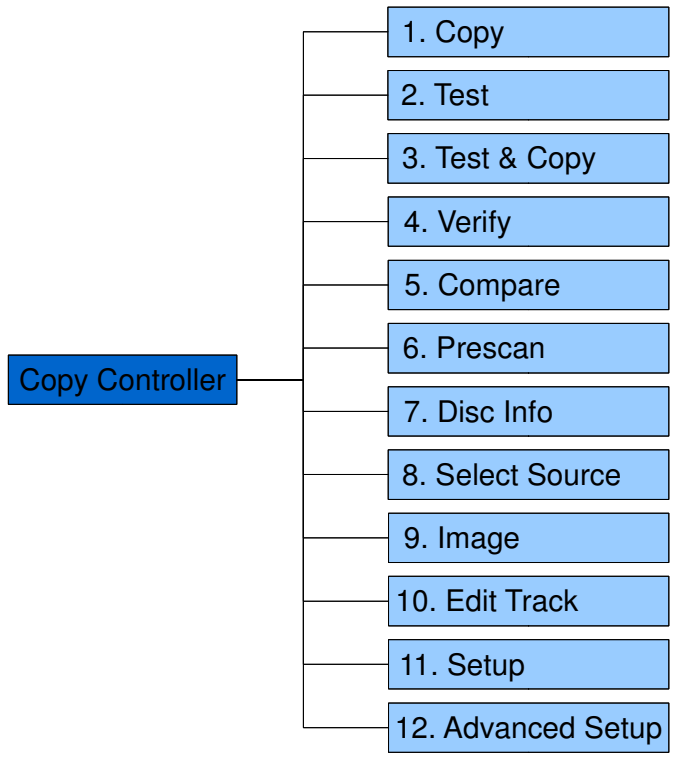
The layout of the ARS-2050P is shown below.



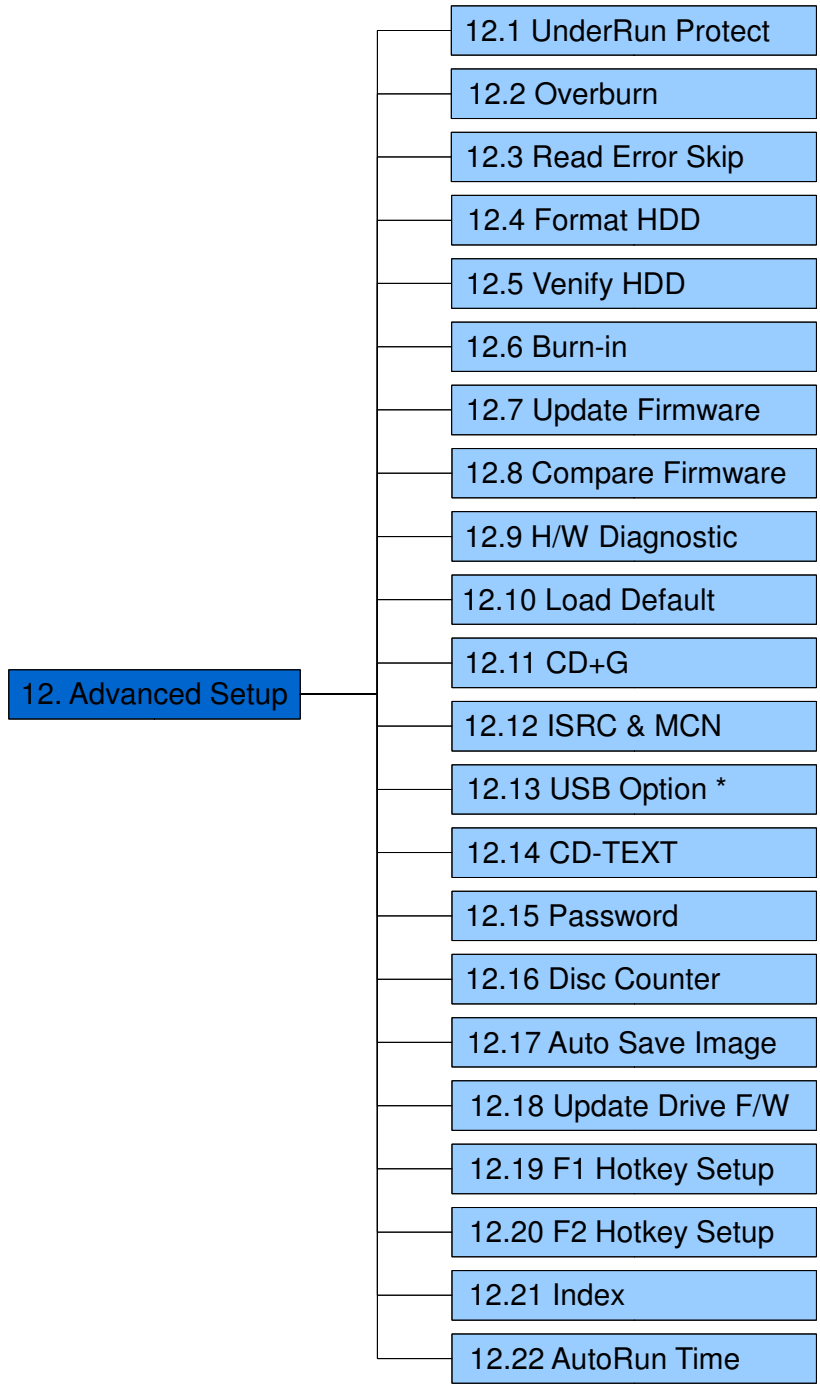
J5: USB signal link
CN13: Connects to source BD/DVD-ROM
CN12: Connects to SATA HDD
CN2 & CN6(upper level) & CN7 & CN8 & CN16 & CN17: Connects to target BD/DVD writers
CN11: Power socket

Chapter 5 Functions

There are 12 major functions in the copy controller as the following figure shows, and there are subfunctions in Function 9, 10, 11, and 12.



In Function 12 there are 22 subfunctions.



* This is a special function. See P. 20 for details.

During operation if you don't understand an LCD message, see Appendix A . Now let's take ARS-2057P to demonstrate.

5.1 Adv Setup

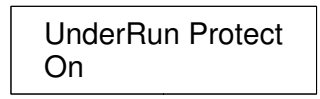
Function 12 Adv Setup lets you change the system configuration. This function includes 22 subfunctions: UnderRun Protect, Overburn, Read Error Skip, Format HDD, Verify HDD, Burn-in, Update Firmware, Compare Firmware, H/W Diagnostic, Load Default, CD+G, ISRC & MCN, USB Option, CD-TEXT, Password, Disc Counter, Auto Save Image, Update Drive F/W, Index and AutoRun Time. Refer to page 15 for the menu.

Under the first layer on function menu, press **ESC** for 2 seconds to enter Function 12-01 as the following figure shows.

5.1.1 UnderRun Protect

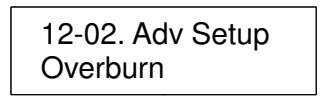
UnderRun Protect lets you control On and Off of Buffer Under Run Protection.

Press **ENT** to enter the following figure. UnderRun Protect lets you control On and Off of Buffer Under Run Protection. The default is On. Press ▼ to select Off.

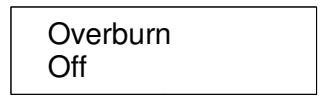


5.1.2 Overburn

Now press **ESC** and ▼ to enter the following figure. Overburn lets you decide whether to copy beyond the limit of the media or not.

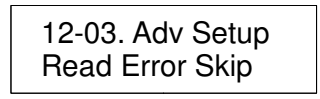


Press **ENT** to enter the following figure. The default is Off. Press ▼ to select On. Overburn may cause a DVD writer to be damaged and data incomplete.

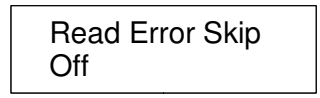


5.1.3 Read Error Skip

Now press **ESC** and ▼ to enter the following figure. Read Error Skip is to ignore any error that occurs during copying. Under normal circumstances, when an error occurs during copying, a message will appear on LCD. Yet, you can use Read Error Skip to copy some defective medias.



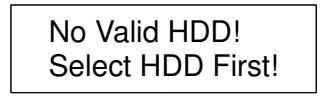
Press **ENT** to enter the following figure. The default is Off. Press ▼ to select On.



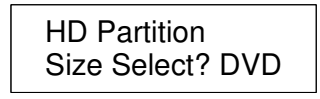
5.1.4 Format HDD

Now press **ESC** and ▼ to enter the following figure. Format HDD is to partition the hard disk. But after formatting, all data on the hard disk will be deleted.

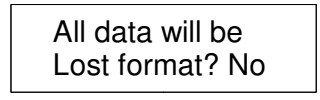
If your copy controller doesn't connect with a hard disk, LCD will show the message as follows.



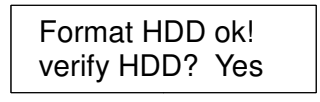
If your copy controller is connect with a hard disk, LCD will ask you to choose partition type. There are 5 types of partition size for you to choose, which are F_S, DVD, CD, DL and Auto.



Press **ENT** to enter the following figure. All data on the hard drive will be lost after the format and you are asked to confirm again. The default is No. Press ▼ to select Yes.



After the hard drive is formatted correctly, LCD will show the message as follow. Press **ENT** to verify HDD or press ▼ and choose No to finish Format HDD.



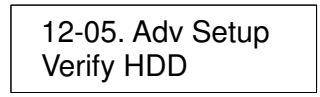
How do I choose HD partition type?

In DVD a partition occupies 5GB, in CD 1GB, in DL 10GB and in Auto 1GB. When hard drive is partitioned as F_S, DVD, CD or DL, you are not allowed to load images larger than the partition size. (Ex: If you choose to partition as DVD, you are only allowed to load DVD and CD images but not DL.) When hard drive is partitioned as Auto, controller will automatically occupy partitions for your image type. (Ex: If you choose to partition as Auto, controller will occupy 1 partition and 5 partitions when CD and DVD images are loaded respectivelly.)Therefore, Auto is the most efficient way to load images of different type.

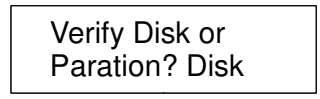
Partition Type	Partition Size	Images to load

5.1.5 Verify HDD

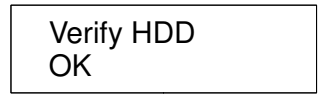
Now press **ESC** to return to Function 12, and then select part 5 Verify HDD as the following figure shows. Verify HDD is to verify if the hard disk or any of its partitions can work well.



Press **ENT** to enter the next figure. Use ▲ ▼ to confirm Disk or Parti.

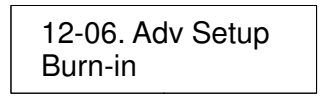


Press **ENT** to verify. After verification LCD will show the results as follows.

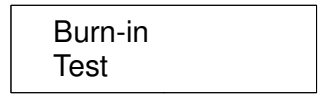


5.1.6 Burn-in

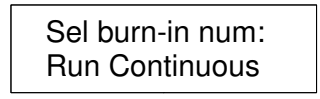
Now press **ESC** and ▼ to enter the following figure. Burn-in is to simulate the copying progress many times. The time can be from 1 to 1000. After each cycle of simulation, the medias on the DVD writers will eject automatically and recede for the next bout of simulation.



Press **ENT** to enter the next figure. Test is simply a simulation.

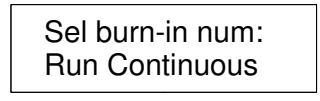


Press **ENT** and use ▲ ▼ to select the time of simulation such as 1, 2, 3...1000 or Run Continuous. The figure below shows Run Continuous.



Press **ESC**, **ENT**, ▼ to select Erase & Copy as the following figure shows. Erase & Copy is to erase and write repeatedly. It is only for media rewriteable discs.

Press **ENT** and use ▲ ▼ to select the time of simulation such as 1, 2, 3...1000 or Run Continuous. The figure below shows Run Continuous.

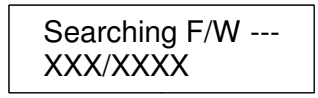


5.1.7 Update Firmware

Now press **ESC** and ▼ to enter the following figure. Update Firmware is to update firmware to the latest version. But you should get the firmware first.

You can get the latest firmware version from ACARD by e-mail, or download it directly from the web site: **http://www.acard.com** Then, unzip the file of .zip and copy it into a CD-RW. If the file is .bin, you don't need to unzip.

After placing the media into the DVD-ROM , press **ENT**. The system will begin searching the new firmware and show the message on LCD as follows after it finds the new firmware. Then press **ENT** to update.

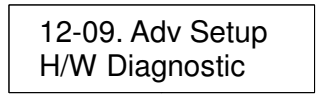


5.1.8 Compare Firmware

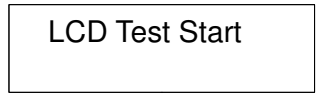
Now press **ESC** and ▼ to enter the following figure. Compare Firmware is to compare the current firmware version and the newly downloaded version. It can prove if the downloaded version is the newest one.

5.1.9 H/W Diagnostic

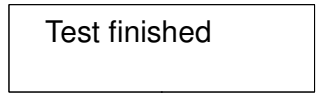
Now press **ESC** and ▼ to enter the following figure. H/W Diagnostic is to test the system



Press **ENT** to enter the next figure, and begin the LCD test. After that, the system will do the button test, self-test of SDRAM, the hardware connection test and flash test. All test results will be shown on LCD. It is the easiest way to know if the system can work well.

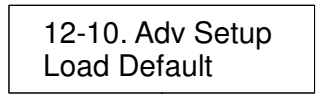


When all tests finishes, LCD will show the message as follows

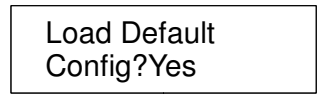


5.1.10 Load Default

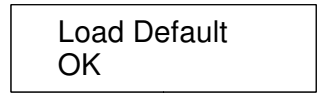
Now press **ESC** and ▼ to enter the following figure. Load Default is to make all changed settings return to defaults.



Press **ENT** to enter the next figure. Use ▲ ▼ to confirm Yes or No.

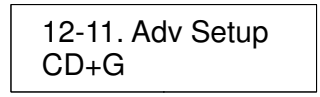


When default loading finishes, LCD will show the results as follows.

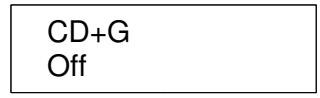


5.1.11 CD+G

Now press **ESC** and ▼ to enter the following figure. CD+G is a kind of special copying format. This function supports this special format.

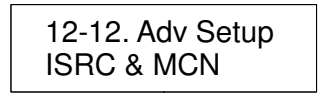


Press **ENT** to enter the next figure. The default is Off. Press ▼ to select On.

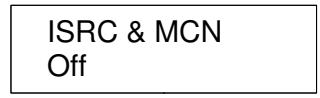


5.1.12 ISRC & MCN

Now press **ESC** and ▼ to enter the following figure. ISRC and MCN are special copying formats. This function supports them.

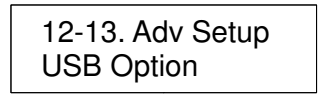


Press **ENT** to enter the next figure. The default is Off. Press ▼ to select On.

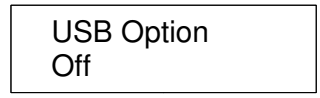


5.1.13 USB Option

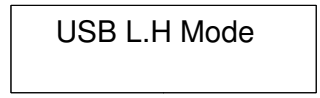
Now press **ESC** and ▼ to enter the following figure. USB Option lets you switch to the USB mode if your copy controller has connected with a PC.



Press **ENT** to enter the next figure. The default is Off. Press ▼ to select On.



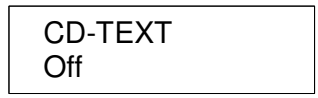
When USB option is On, the original “12. Adv Setup” will change to “13. Adv Setup”, and the hidden “12. USB Mode” will appear in the first layer of function menu.



5.1.14 CD-TEXT

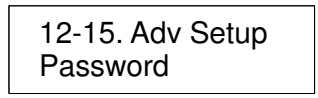
Now press **ESC** and ▼ to enter the following figure. CD-TEXT is a kind of special copying format. This function supports this special format.

Press **ENT** to enter the next figure. The default is Off. Press ▼ to select On.

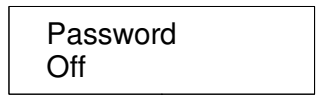


5.1.15 Password

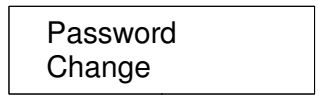
Now press **ESC** and ▼ to enter the following figure. Password is set to protect your copy controller.



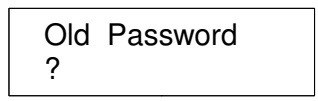
Press **ENT** to see the following figure. The default is Off.



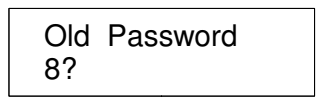
Press ▼ to see the following figure. Change means to change a default or an old password into a new one.



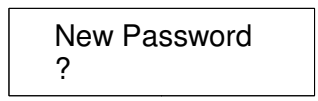
Press ▼ to see the following figure.



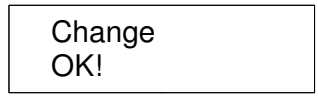
Use ▲ ▼ to key in the default, 85122290. A password should be composed of 1 to 13 characters. The character can be A, B, C, etc. or 1, 2, 3, etc. or the combination of both. After selecting a desired number or alphabet, remember to press **ENT**.



After keying in the old password, remember to press **ENT** to confirm. Then the following figure will appear.

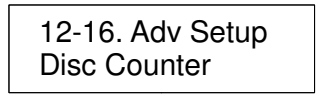


When it is correct, you will see the following figure. You have 3 chances to enter your password. If you forget your password, return the copy controller to ACARD for help.

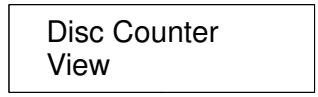


5.1.16 Disc Counter

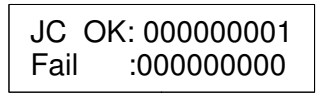
Now press **ESC** and ▼ to enter the following figure. Disc Counter records how many discs you have copied.



Press **ENT** to see the following figure. View means to see the records.

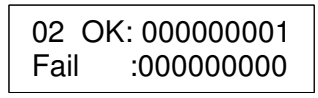


Press **ENT**. JC in the following figure means Job Counter; that is, every copying task. It records the number of discs you have copied, and can be deleted.

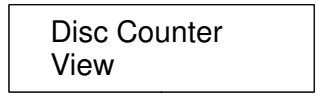


Attention
There is another record of LC (Life Counter). It also records the number of discs you have copied so far, but cannnot be deleted. You can veiw the record of LC by holding down **ESC** when LCD shows the finding of writers. Press ▲ to leave.

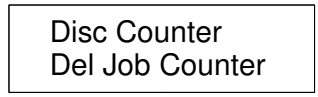
Press ▼. The following figure shows the record in DVD writer 2. You can press ▼ to see the records in other writers. This kind of record can be deleted, too.



Press ▲ to return to the record of job. Then press **ENT** to return to the next figure.



Press ▼ to see the following figure. It is to delete the record in job. Use ▲ ▼ to confirm Yes or No.

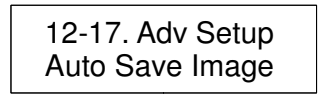


Press ▼ again to enter the following figure. Dev means the device of DVD writer.

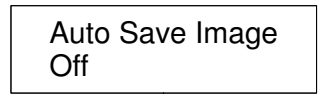
Press **ENT** to see the following figure. If you want to delete the record in DVD writer 2, you can press **ENT**, otherwise press **ESC** to exit.

5.1.17 Auto Save Image

Now press **ESC** and ▼ to enter the following figure. Auto Save Image can save an image file automatically into your designated partition of HDD.

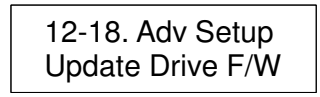


Press **ENT** to enter the next figure. The default is Off. Press ▼ to select On.



5.1.18 Update Drive F/W

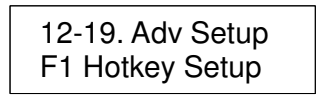
Now press **ESC** and ▼ to enter the following figure. **Only when you have installed some types of CD\DVD drives produced by ASUS or Plextor can this figure appear.** This function lets you udpate the firmware of some ASUS or Plextor CD\DVD drives. For the detailed types, visit the Web site:**www.acard.com**.



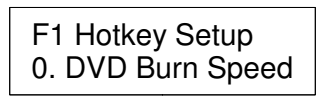
Press **ENT** to enter the next figure. No F/W File means that there is no file of firmware on the source reader. So, in the beginning you have to download the firmware of a certain type of CD\DVD drive from the Web site of ASUS or Plextor. Then record the firmware into a CD-RW.

5.1.19 F1 Hot Key Setting

Now press **ESC** and ▼ to enter the following figure. This function let you change the F1 Hot Key function.



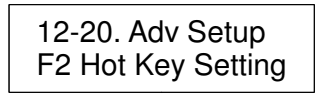
Press **ENT** to enter the next figure. The default is DVD Burn Speed.



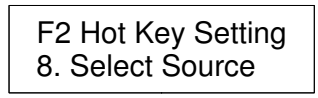
Press ▼ could select as 1. Copy, 2. Test, 3. Test&Copy, 4. Verify, 5. Compare, 6. Prescan, 7. Disc Info, 8. Select Source, 9. Image, 10. Edit Track, 11. Setup and 12. Adv Setup.
Please press **ENT** to confirm the selection.

5.1.20 F2 Hot Key Setting

Now press **ESC** and ▼ to enter the following figure. This function let you change the F2 Hot Key function.



Press **ENT** to enter the next figure. The default is Select Source.

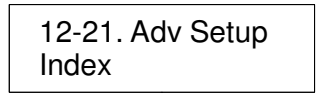


Press ▼ could select as 8. Select Source, 9. Image, 10. Edit Track, 11. Setup, 12. Adv Setup, 1. Copy, 2. Test, 3. Test&Copy, 4. Verify, 5. Compare, 6. Prescan and 7. Disc Info.
Please press **ENT** to confirm the selection.

Note: The Hot Key function could make job to work more efficiency.

5.1.21 Index (Optional Function)

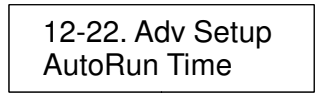
Now press **ESC** and ▼ to enter the following figure. Index is a kind of special copying format. This function supports this special format.



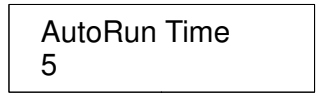
Press **ENT** to see the following figure. The default is Off.

5.1.22 AutoRun Time (Optional Function)

Now press **ESC** and ▼ to enter the following figure. AutoRun Time can a copy automatically within few seconds.



Press **ENT**. The default is 5 second.



Press ▼ could select as off or 1~99 second.

Press **ENT** to confirm the selection.

Chapter 6 Troubleshooting

6.1 About LCD

After you power up, if there is no display on the LCD, check if the connection of power cord is firm and the environment of power outlet is normal.

6.2 About Error Messages

During Copy, Test, Compare and Verify, etc. if you press **ESC** to abort, an error message will appear on LCD. Abortion may cause the copy controller to hang up,therefore you have to power on again.

If reading fails, an error message will appear on LCD. Get a new source DVD to try again.

If the copy controller hasn't detected any device after powering on, an error message will appear on LCD.

6.3 About DVD-ROM/DVD Writers

If a DVD-ROM or a DVD writer cannot read, confirm the format of the source DVD and check if it is damaged.

Use any DVD writer to read the source DVD. If it works, the DVD-ROM is probably defective or not compatible with the source DVD.

6.4 About Buttons

If you press any one of the four buttons on the panel, but there is no response, it is perhaps that the button cannot function well. Inspect the jumper setting.

6.5 About DVD Writer Not Readable

After copying if the DVD writer is not readable, use Compare to examine, or get another DVD-ROM to test.

6.6 About High Failure Rate

If the failure rate of copying is high, do the following things to improve.

- Lower the speed of DVD writer.
- Inspect if the blank disc's quality is good.
- Update the firmware.
- Inspect the DVD writer's maximum writing speed. If the speed is over 8X, copy the data to a hard disk first, and then transmit to DVD.

6.7 About Firmware Update

If you cannot update the firmware, please inspect the firmware. Perhaps you have downloaded a wrong file.

Failure in firmware update may cause the copy controller to fail in booting. Under the circumstances, return the control board to distributor for repair.

6.8 About Function 12 and Cancellation

If you want to execute function 12 Advanced Setup, you can press ESC for 2 seconds.

And during operation if you want to cancel a function like Copy, Test, Verify and so on, you can press ESC for 2 seconds, too.

Appendix A LCD Messages

1. Normal Conditions:

All data will be lost, erase?.....All data on the disc will be lost. Confirm the erasing of data.
Analyzing.....Analyze the source disc.
Audio Disc!!! Can't compare!..... The system cannot compare the audio discs.
Cannot read TOC..... The system cannot read the contents of disc.
Check Target Please Wait .....The system is checking the target device.
Detect Drives.....Detect what drives are connected with the system.
DVD-RW does not Support the Func..... .. DVD-RW doesn't support this function.
Erase Finished..... The erasing of data comes to an end.
Erasing disc.....The system is erasing the data on the disc.
Fail to get Drive Info!..... The drive information cannot be obtained.
Fail to get Src Disc Info!..... The information of source disc cannot be obtained.
Hold ESC to exit..... Press ESC for a second to terminate the test.
Identical..... The comparison results are the same.
Initialize SDRAM.....Initialize the memory of the system.
Load Default Config?.....Do you want to load the default settings?
No Erasable Disc in DVD-RW!!.....The disc on the DVD-RW device is not rewritable.
Preparing..... The system is preparing to record.
Press a Key to Eject Fail Disc.....Press any key to eject the failed disc after copying.
Press a Key to Eject Good Disc..... Press any ket to eject the good disc after copying.
Read disc error .....During comparison the disc cannot be read.
Save new config Fail!..... The new setting of configuration cannot be saved.
Source Disc Empty!!!..... The source disc doesn't contain any data.
Source Disc Not Ready..... Source disc is not ready to be read.
Source Drive Not Ready.....Source drive is not ready to read.
Src&Tgt can't in the same channel.....
.....During comparison the source and target discs cannot be in the same channel.
Target Disc Not Empty!!!..... The target disc still has data.
Target Disc Not Ready..... Target disc is not ready to be written into.
Target Drive Not Ready.....Target drive is not ready to write.
Target overflow..... The target disc hasn't enough capacity to store new data.
TOC not match..... The comparison results are not the same.
User Abort!.....Cancel the job during operation.

2. Connecting with a HDD:

All data will be lost, format?.....
.....All data on the hard disk will be lost. Confirm the formatting of hard disk.
Delete Image in Partition xx?.....Confirm the deleting of data image in partition xx.
Format HDD?..... Ask if you want to format the hard disk.
Format HDD OK! .....The Formatting of hard disk has been completed.
HDD not Format!.....The hard disk hasn't been formatted yet.
HDD too small ..... The capacity of hard disk is too small.
HDD too small to handle image!.....
.....The hard disk hasn't enough capacity to store the data image (at least 5Gbytes).
Image Exists Overwrite?.....
.....There is a data image in the current partition. Confirm the overwriting of data.
Image load Fail.....The image isn't successfully loaded from DVD to the hard disk.
Image load OK..... The image is successfully loaded from DVD to the hard disk

No Image in Partition xx.....There is no data image in partition xx.
No Valid HDD!..... The system cannot find a hard disk.
Partition Damage.....The partition is damaged.
Select HD First!..... Select a formatted hard disk at first.
Verify Disk or Partition?..... Do you want to verify the hard disk or just a partition?
Verify Hard Disk Fail!..... The hard disk is not verified successfully.

3. Audio Editing:

Burn or Move to partition?.....
.....Do you want to directly copy the data into disc or move them to the partition.
Can't edit HDD..... The hard disk cannot be edited as a source audio disc.
Close all disc's session?..... Confirm the closing of disc sessions.
Continue edit next Disc?..... Ask if you want to continue the music disc editing.
End edit disc and burn?..... Finish the music disc editing and start to copy.
Erase selected Tracks?..... Abort the selected tracks and delete them.
Ins empty disc Continue?..... Do you want to insert a blank disc and continue copying?
Insert next disc..... Insert the next audio disc.
NO AUDIO track in this disc..... The source disc has no audio track.
Sessions were closed already! ..... The disc sessions have already been closed.
Target Overflow Re-Select.....
.....The disc capacity is not enough to store the selected tracks. Please select again.
Tgt overflow, del last trk?..... The disc capacity is not enough to store the selected tracks. So, do you want to delete the last track?

4. Firmware Update:

Check Sum Error!..... The udpated firmware has errors.
Flash ROM fail!..... Data cannot be written into Flash ROM.
Invalid firmware ..... The disc doesn't contain a valid firmware.
Last update F/W Fail!..... The firmware is not updated successfully.
Last update F/W OK!..... The firmware is updated successfully.
Searching F/W ..... The system is searching for a valid firmware.
Source can't be Hard Disk!.....During comparison the source cannot be hard disk.

Technical Support Form

Email address: support@acard.com
Website: http://www.acard.com

Model Name* (ex: ARS-2057P)		Firmware version*	
System Configuration			
Motherboard/System model*			
SCSI host adapter/chip brand & model*			
SCSI host BIOS version			
Other I/O card*			
Operating System*			
SATA HDD brand & model*			
SATA HDD capacity			
SATA HDD firmware			
Problem description*			